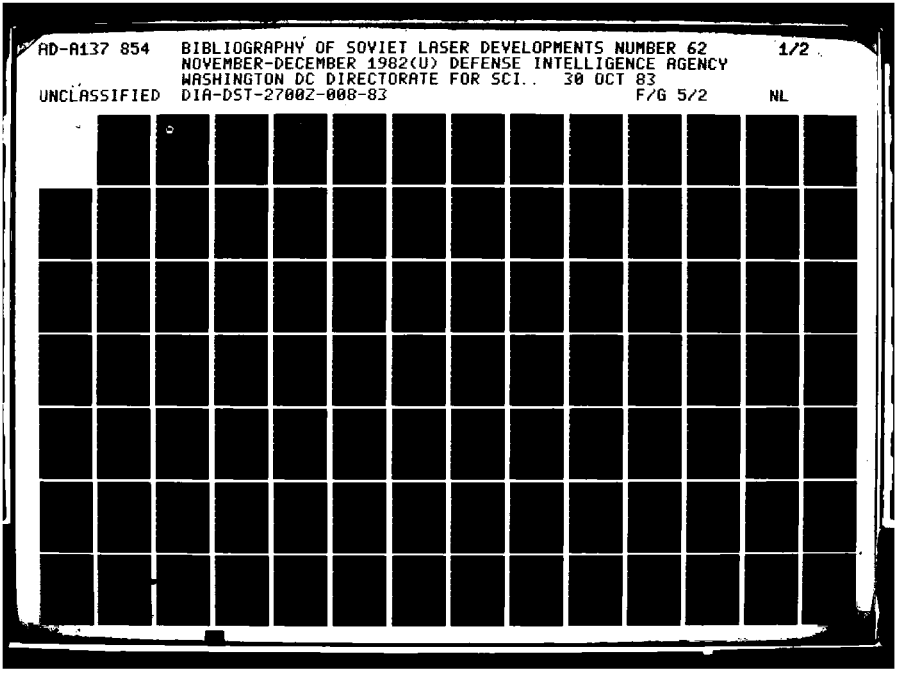
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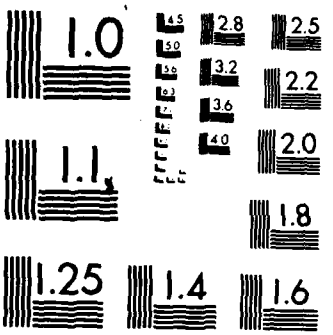

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20. ABSTRACT

This is the Soviet Laser Bibliography for November-December 1982, and is No. 62 in a continuing series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas, and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; theoretical aspects of advanced lasers; and general laser theory.
Laser applications are listed under biological effects; communications; beam propagation; adaptive optics; computer technology; holography; laser-induced chemical reactions; measurement of laser parameters; laser measurement applications; laser-excited optical effects; laser spectroscopy; beam-target interaction; and plasma generation and diagnostics.

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Introduction

This bibliography has been compiled under an interagency agreement as a continuing effort to document current Soviet-bloc developments in the quandum electronics field. The period covered is November-December 1982, and includes all significant laser-related articles received by us in that interval. The bulk of the entries come from the approximately 30 periodicals which are known to publish the most significant findings in Soviet laser technology. Citations from the Russian Reference Journals are also included. Laser items from the popular or semipopular press are generally omitted.

Section IIC, Beam Propagation, has a new subsection, Adaptive Optics.

For convenience we have abbreviated frequently cited source names; a source abbreviations list and an author index are included. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry (RZh, KL) indicates the secondary source in which the citation was found as a bibliographic entry or abstract, but for which the original source is not currently available at the Library. The authors' affiliations are indicated by the numbers in parentheses following the authors' names in the text and are listed in the Author Affiliations List. New affiliations are assigned a new number and are added to a cumulative list which includes all affiliations from 1969 to the present. Only those affiliations which appear in this issue are listed in this issue's Author Affiliations List.

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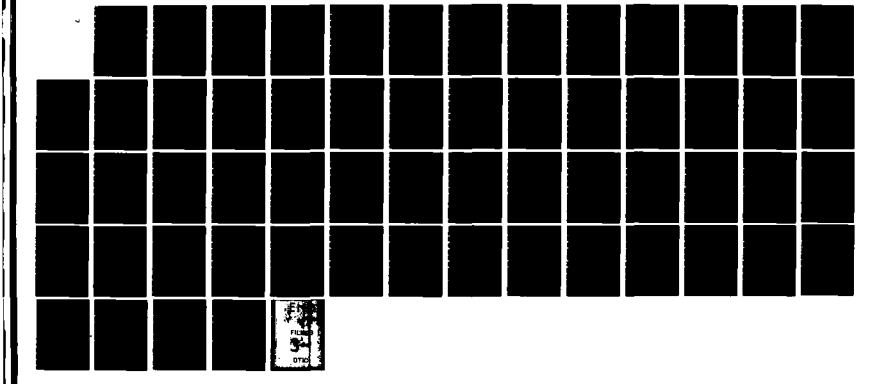

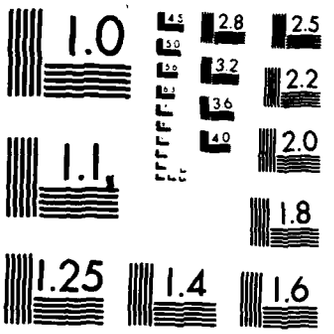

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J. BEAM-TARGET INTERACTION

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K. PLASMA GENERATION AND DIAGNOSTICS

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IV. SOURCE ABBREVIATIONS

	(CIRC Codens)	
BAPS	(BAPTA)	Bulletin de l'Academie Polonaise des Sciences. Serie des Sciences Techniques
CCCC	(CCCCA)	Collection of Czechoslovak Chemical Communications
CJP	(CZYPA)	Czechoslovak Journal of Physics
DAN	(DANKA)	Akademiya nauk SSSR. Doklady
DAN B	(DERUB)	Akademiya nauk Belorusskoy SSR. Doklady
DAN Ukr	(DUKAB)	Akademiya nauk Ukrainskoi RSR. Dopovidi. Seriya A. Fiziko-matematychni ta tekhnichni nauky
DBAN	(CRABA)	Bulgarska akademiya na naukite. Doklady
DR	(DERUB)	Deponirovannyye rukopisi
EOM	(EOBMA)	Elektronnaya obrabotka materialov
ETP	(EXPRA)	Experimentellle Technik der Physik
FAiO	(IFAOA)	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana
FGiV	(FGVZA)	Fizika goreniya i vzryva
FiKhOM	(FKOMA)	Fizika i khimiya obrabotki materialov
FiKhS	(FKSTD)	Fizika i khimiya stekla
FTP	(FTPPA)	Fizika i tekhnika poluprovodnikov
FTT	(FTVTA)	Fizika tverdogo tela
IAN B Fiz-mat	(VBSFA)	Akademiya nauk Belorusskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
Fiz-tekh	(VABFA)	Seriya fiziko-tekhnicheskikh nauk
IAN Fiz	(IANFA)	Akademiya nauk SSSR. Izvestiya. Seriya fizicheskya
IAN Khim	(IASKA)	Akademiya nauk SSSR. Izvestiya. Seriya khimicheskaya
IAN Lat	(LZFTA)	Akademiya nauk Latviyskiy SSR. Izvestiya. Seriya fizicheskikh i tekhnicheskiky nauk
IAN M	(IZFMB)	Akademiya nauk Moldavskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh i matematicheskikh nauk
IT	(IZTEA)	Izmeritel'naya tekhnika
IVUZ Priboro	(IVUBA)	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye
IVUZ Radioelek	(IVUZB)	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
IVUZ Radiofiz	(IVYRA)	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika
KE	(KVEKA)	Kvantovaya elektronika

KL	(KNLTA)	Knizhnaya letopis'
Kristal	(KRISA)	Kristallografiya
KSpF	(KRSFA)	Kratkiye soobshcheniya po fizike
MZhiG	(IMZGA)	Akademiya nauk SSSR. Izvestiya. Mekhanika zhidkosti i gaza
NM	(IVNMA)	Akademiya nauk SSSR. Izvestiya. Neorganicheskiye materialy
OiS	(OPSPA)	Optika i spektroskopiya
OMP	(OPMPA)	Optiko-mekhanicheskaya promyshlennost'
Otkr izobr	(OIPOB)	Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki
Poverkh	(-----)	Pverkhnost'. Fizika, khimiya, mekhanika
PSS	(PSSAB) (PSSBB)	Physica Status Solidi (A). Applied Research (B). Basic Research
PSU	(PRSUB)	Pribory i sistemy upravleniya
RiE	(RAELA)	Radiotekhnika i elektronika
RRP	(RRPZA)	Revue Roumaine de Physique
RZhF	(RZFZA)	Referativnyy zhurnal. Fizika
RZhR	(RZRAB)	Referativnyy zhurnal. Radiotekhnika
Sb1	sbornik	Kvantovaya elektronika. Leningradskiy politekhnicheskiy institut. Sbornik nauchnykh trudov, no. 387, Leningrad, 1982.
Sb2		Kvantovaya elektronika, no. 23, Kiyev, Naukova dumka, 1982.
Sb3		Respublikanskaya konferentsiya molodykh uchenykh po fizika, posvyashchennaya 60 letiyu obrazovaniya SSSR. 7th, Mogilev, June 1982. Tezisy dokladov. Institut fizika AN BSSR, Minsk, 1982.
Sb4		Voprosy difraktsii elektromagnitnykh voln. Moskovskiy fiziko-tekhnicheskiy institut. Mezhduvedomstvennyy sbornik nauchnykh trudov, Moskva, 1982.
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Sb12	Sovremennyye materialy radioelektroniki. Moskva, 1981.
Sb13	Nelineynaya optika. Vavilovskaya konferentsiya. 7th, Novosibirsk, 22-25 June 1981. Trudy. Part 2. Institut avtomatiki i elektrometrii SOAN. Novosibirsk, 1982.
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Sb16	Konferentsiya molodykh uchenykh Universiteta druzhby narodov. 5th. Moskva, March 1982. Materialy. Part 1. Deposit at VINITI, no. 3814-83, 15 July 1982.
Sb17	Physics of Magnetic Materials. International Conference. 1st, Faszowiec, 12-20 April 1980. Proceedings. Wroclaw, 1981.
Sb18	Problemy teoreticheskoy kristallokhimii slozhnykh oksidov. Institut khimii silikatov AN SSSR. Leningrad, Nauka, 1982.
Sb19	Relyativistskiye vysokochastotnyye elektrony. Problemy povyshennoy moshchnosti i chastoty izluchenii. Vsesoyuznyy seminar. 2nd, Tomsk. 11-13 Sep 1980. Materialy. Gor'kiy, 1981.
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Tr1	trudy	VNII monokristallov, Stsintillyatsionnykh materialov i osobo chistykh khimicheskikh veshchestv. Sbornik nauchnykh trudov, no. 8, 1982.
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UFN	(UFNAA)	Uspekhi fizicheskikh nauk
UFZh	(UFIZA)	Ukrainskiy fizicheskiy zhurnal
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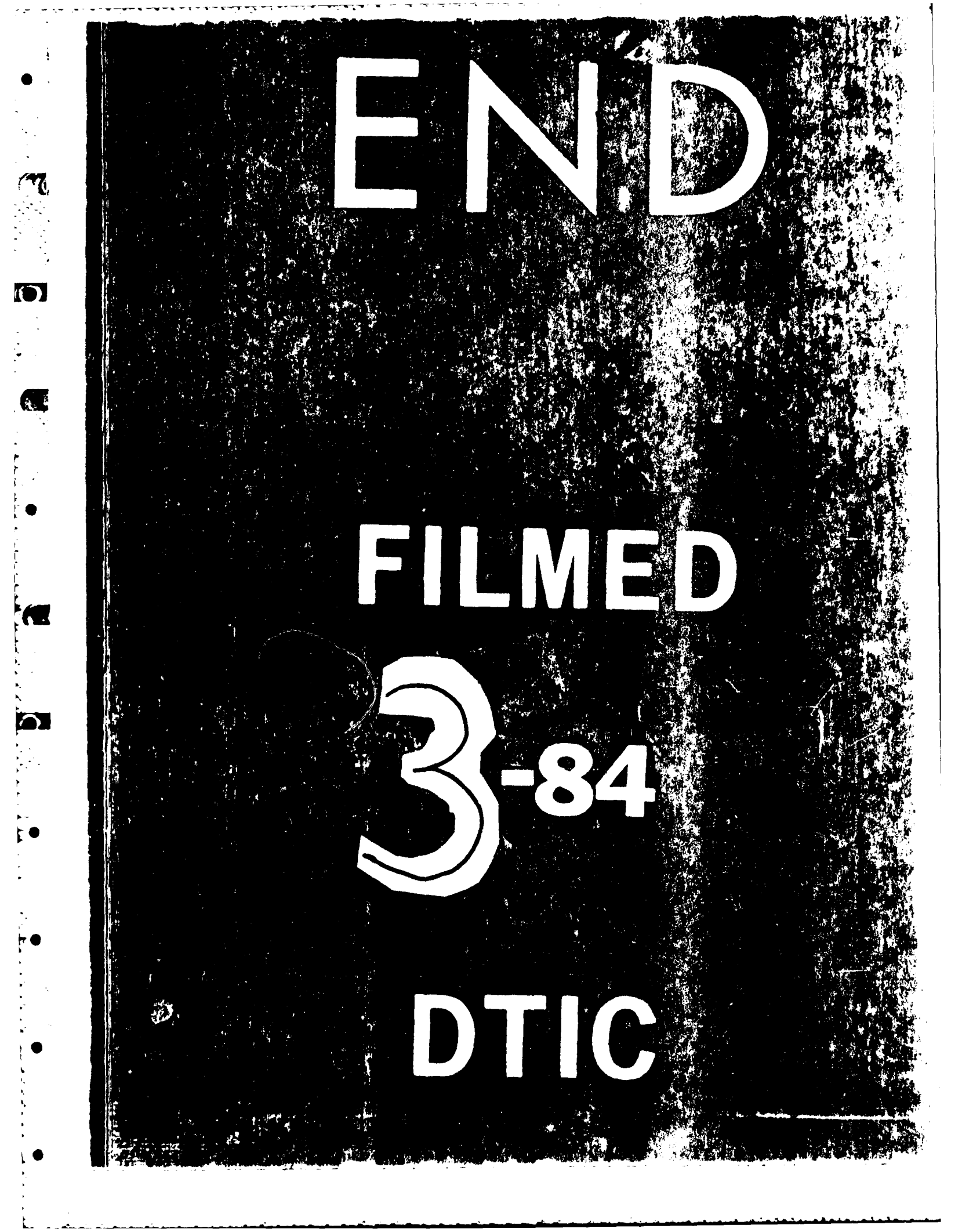
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